

IN THE CLAIMS

1. (Currently amended) A method for manufacturing and assembling hot runner systems, the method comprising ~~the steps of:~~

~~forming manufacturing~~ a plurality of unitary manifold plates for hot runner systems;

adding heating elements to the unitary manifold plates;

~~partially manufacturing the unitary manifold plates by~~ drilling flow channels into the unitary manifold plates ~~to thereby create a plurality of partially manufactured hot runner manifold plates;~~

creating an inventory of ~~partially manufactured hot runner~~ unitary manifold plates;

~~receiving taking~~ an order with customized specifications for a hot runner system;

~~selecting removing from the inventory one of the a partially manufactured hot runner~~ unitary manifold plates; that corresponds to the customized specifications of the order;

~~providing one or more~~ injection nozzles; and ~~one or more manifold~~ plugs that correspond to the customized specifications of the order;

boring out holes for the one or more plugs in the ~~selected partially manufactured hot runner~~ manifold plate at locations that correspond to the customized specifications of the order;

inserting the one or more plugs into the bored-out holes of the selected

~~partially-manufactured hot-runner~~ manifold plate; and

positioning attaching the one or more nozzles with respect to the selected
~~partially-manufactured hot-runner~~ manifold plate ~~in alignment with the plugs~~ to thereby
create a completed hot runner system.

2. (Currently amended) The method of claim 1 wherein the customized specifications comprise at least one of nozzle types, nozzle pitches, manifold shapes, manifold lengths, or ~~and~~ manifold thickness.
3. (Currently amended) The method of claim 1 wherein the step of adding heating elements comprises further comprising the steps of milling grooves in the unitary manifold plates and inserting the heating elements into the grooves.
4. (Currently amended) The method of claim 1 further comprising ~~the step of~~ grinding the selected manifold plates to dimensions that correspond to the customized specifications of the orders.
5. (Currently amended) The method of claim 1 further comprising ~~the step of~~ drilling holes in the selected manifold plates around the bored-out holes for attaching the one or more nozzles to the manifold plates.

6. (Currently amended) The method of claim 1 further comprising ~~the step of~~ boring out slots for a plurality of alignment pins in the selected manifold plates adjacent ~~next to~~ the bored-out holes.

7. (Currently amended) The method of claim 1 further comprising ~~the step of~~ aligning plug channels of the plugs with the flow channels of the selected manifold plates.

8. (Currently amended) The method of claim 1 further comprising ~~the step of~~ aligning plug channels of the plugs with the flow channels of the selected manifold plates and melt channels of the nozzles.

9. (Currently amended) A method for manufacturing and assembling hot runner systems, the method comprising ~~the steps of~~:

forming ~~manufacturing~~ a plurality of unitary manifold plates for hot runner systems;

partially manufacturing the unitary manifold plates by drilling flow channels into the unitary manifold plates ~~to thereby create a plurality of partially manufactured manifold plates~~;

creating an inventory of ~~partially manufactured~~ unitary manifold plates;

receiving ~~taking~~ an order with customized specifications for a hot runner system;

selecting ~~removing~~ from the inventory a ~~partially manufactured~~ unitary

manifold plate, that corresponds to the customized specifications of the order;

providing one or more injection nozzles; and one or more plugs that correspond to the customized specifications of the order;

adding heating elements to the selected ~~partially manufactured~~ manifold plate;

boring out holes for the one or more plugs in the selected ~~partially manufactured~~ manifold plate at locations that correspond to the customized specifications of the order;

drilling holes in the selected ~~partially manufactured~~ manifold plate around the bored out holes for attaching the one or more nozzles to the selected manifold plate;

inserting the one or more plugs into the bored-out holes of the selected ~~partially manufactured~~ manifold plate; and

positioning ~~attaching~~ the one or more nozzles with respect to the selected ~~partially manufactured~~ manifold plate ~~in alignment with the plugs~~ to thereby create a completed hot runner system.

10. (Currently amended) The method of claim 9 wherein the customized specifications comprise at least one of nozzle types, nozzle pitches, manifold shapes, manifold lengths, or ~~and~~ manifold thickness.

11. (Currently amended) The method of claim 9 further comprising ~~the step of~~ grinding the selected ~~partially manufactured~~ manifold plates to dimensions that

correspond to the customized specifications of the orders.

12. (Currently amended) The method of claim 9 further comprising ~~the step of boring~~ out slots for alignment pins in the selected ~~partially-manufactured~~ manifold plates next to the bored-out holes.

13. (Currently amended) The method of claim 9 further comprising ~~the step of~~ aligning plug channels of the plugs with the flow channels of the selected ~~partially manufactured~~ manifold plates.

14. (Currently amended) The method of claim 9 further comprising ~~the step of~~ aligning plug channels of the plugs with the flow channels of the selected ~~partially manufactured~~ manifold plates and melt channels of the nozzles.

Claims 15-20 (cancelled).

21. (Currently amended) A method for manufacturing and assembling hot runner systems, the method comprising ~~the steps of~~:

partially manufacturing a plurality of hot runner components to include ~~partially-manufactured~~ unitary manifold plates that form at least a portion of a hot runner system in a first phase;

placing the hot runner components in inventory;

receiving an order with customized specifications for a hot runner system;
~~selecting hot runner components removing the hot runner components~~
from inventory including one of the unitary manifold plates that corresponds to
the customized specifications; and

further manufacturing the selected hot runner components in accordance
with the customized specifications of the order in a second phase.

22. (Previously presented) The method of claim 21 wherein the customized
specifications comprise at least one of nozzle types, nozzle pitches, manifold shapes,
manifold lengths, or ~~and~~ manifold thickness.

23. (Currently amended) The method of claim 21 wherein said partially
manufacturing comprises ~~further comprising the step of~~ milling a groove in each ~~the~~
unitary manifold plate and inserting a heating element into the groove.

24. (Currently amended) The method of claim 21 wherein said further manufacturing
comprises ~~further comprising the step of~~ grinding the selected manifold plate to
dimensions that correspond to the customized specifications of the order.

25. (Currently amended) The method of claim 21 wherein said partially
manufacturing comprises ~~further comprising the step of~~ assembling each ~~the partially~~
~~manufactured~~ unitary manifold plates with a heater assembly ~~into an incomplete hot~~

~~runner system in the first phase.~~

26. (Currently amended) The method of claim 25 wherein said further manufacturing comprises further comprising the step of further assembling the selected partially manufactured manifold plates with other of the selected hot runner components to form ~~into~~ a complete hot runner system in accordance with the customized specifications of the order ~~in the second phase.~~

27. (New) A method for manufacturing a completed hot runner manifold plate for a hot runner system, the method comprising:

forming a plurality of manifold plates having predefined shapes for hot runner systems;

adding heating elements to the manifold plates;

partially manufacturing the manifold plates by drilling flow channels into the manifold plates;

creating an inventory of the manifold plates;

receiving an order with customized specifications for a hot runner system;

selecting from inventory one manifold plate that corresponds to the customized specifications of the order;

completing manufacturing of the selected manifold plate according to the customized specifications to thereby create a completed manifold plate having substantially the same shape as the predefined shape of the selected manifold plate.

28. (New) The method of claim 27 wherein the predefined shapes of the manifold plates comprise any two or more of a straight bar shape, an X-shape, an H-shape, a Y-shape, a Y-plate shape, or an H-plate shape.
29. (New) The method of claim 27 wherein the customized specifications comprise at least one of manifold shapes, manifold lengths, or manifold thicknesses.
30. (New) The method of claim 27 wherein adding heating elements comprises milling grooves in the manifold plates and inserting the heating elements into the grooves.
31. (New) The method of claim 27 wherein completing manufacturing comprises grinding the selected manifold plate to dimensions that correspond to the customized specifications of the order.
32. (New) A method for manufacturing a manifold for a hot runner system, the method comprising:
- partially manufacturing a plurality of manifold plates having predefined shapes in a first phase;
 - placing the manifold plates in stock;
 - receiving an order with customized specifications for a hot runner system;

selecting one manifold plate corresponding to the customized specifications from stock; and

further manufacturing the selected manifold plate in accordance with the customized specifications in a second phase to thereby complete manufacturing of the manifold for the hot runner system such that the completed manifold has the same shape as the predefined shape of the selected manifold plate.

33. (New) The method of claim 32 wherein the predefined shapes of the manifold plates comprise any two or more of a straight bar shape, an X-shape, an H-shape, a Y-shape, a Y-plate shape, or an H-plate shape.

34. (New) The method of claim 32 wherein the customized specifications of the order comprise at least one of manifold shapes, manifold lengths, or manifold thicknesses.

35. (New) The method of claim 32 wherein partially manufacturing a plurality of manifold plates comprises:

adding heating elements to the manifold plates; and
drilling flow channels into the manifold plates.

36. (New) The method of claim 32 wherein further manufacturing the selected manifold plate comprises boring out holes in the selected manifold plate at locations that correspond to the customized specifications of the order.

37. (New) A method for manufacturing and assembling hot runner systems, the method comprising:

- forming a plurality of unitary manifold plates for hot runner systems;
- partially manufacturing the unitary manifold plates by drilling into each unitary manifold plate a common melt inlet and one or more flow channels in communication with the melt inlet, the melt inlet being substantially perpendicular to the flow channels;
- creating an inventory of the partially manufactured unitary manifold plates;
- receiving an order with customized specifications for a hot runner system;
- selecting from the inventory one of the unitary manifold plates that corresponds to the customized specifications of the order;
- providing one or more injection nozzles and one or more manifold plugs that correspond to the customized specifications of the order;
- further manufacturing the selected unitary manifold plate by boring out holes for the one or more plugs at locations that correspond to the customized specifications of the order;
- inserting the one or more plugs into the bored-out holes of the selected unitary manifold plate; and
- positioning the one or more nozzles with respect to the selected unitary manifold plate so that the one or more nozzles are in communication with the one or

more flow channels.

38. (New) The method of claim 37 further comprising adding heating elements to the unitary manifold plates.

39. (New) The method of claim 38 wherein adding heating elements comprises milling grooves in the unitary manifold plates and inserting the heating elements into the grooves.

40. (New) The method of claim 37 wherein the customized specifications comprise at least one of manifold shapes, manifold lengths, or manifold thicknesses.

41. (New) The method of claim 37 wherein further manufacturing of the selected unitary manifold plate also comprises grinding the selected unitary manifold plate to dimensions that correspond to the customized specifications of the order.

42. (New) The method of claim 37 wherein the selected partially-manufactured unitary manifold plate has substantially the same shape as the further-manufactured unitary manifold plate.